

Amendments to the Specification:

Please replace the paragraph beginning at page 4, line 26 with the following amended paragraph:

Housing 13 has an exterior surface 21 and an interior surface 23. The interior surface defines a chamber 25 for receiving the plunger 15. A fluid input opening 29 and a fluid discharge opening 30(not shown) extends between said interior surface 23 and exterior surfaces 21. A check valve 33 is depicted in communication with the fluid input opening 29. The fluid outlet opening would normally have fittings for communication with other assemblies and conduits in a manner well known in the art.

Please replace the paragraph beginning at page 4, line 33 with the following amended paragraph:

The chamber 25 has a cylindrical shape with a first end wall 31 and a second end wall 32 having a plunger opening 35 for receiving plunger 15. Individuals skilled in the art will recognize that the chamber may deviate from a perfect cylinder and encompass forms with one or more sides while retaining the function of cooperation with the plunger 15. Plunger 15 is received in the plunger opening 35 for reciprocating movement in the chamber 25. The reciprocating movement causes fluid movement. Fluid enters the chamber through the fluid input opening 29 and out through the fluid discharge opening 30(not shown).

Please replace the paragraph beginning at page 6, line 22 with the following amended paragraph:

A further embodiment of the present invention is directed to a method of measuring pressure in a pump chamber 25. The method comprises the steps of providing a housing 13 having an exterior surface 21 and an interior surface 23. The interior surface 23 defines a chamber 25 for receiving a plunger 15. The housing 13 further has a fluid input

opening 29 and a fluid discharge opening 30(not shown) extending between said interior surface 23 and exterior surface 23. The chamber 25 has a cylindrical shape with a first end wall 31 and a plunger opening 35 for receiving plunger 15. The exterior surface 21 of the housing 13 has a transducer surface 41 between the first end wall 31 and the plunger opening 35. The interior surface 21 and exterior surface 23 define a first thickness and a second thickness. The transducer surface 41 having the second thickness and exhibiting measurable deformation upon the chamber 25 holding a fluid under pressure such that the transducer surface 41 has a first position at which the chamber is at one pressure and a second position at which said chamber 25 is a second pressure. A plunger 15 is received in the plunger opening 35 for reciprocating movement in the chamber 25. The reciprocating movement causes fluid movement. Fluid enters the chamber 25 through the fluid input opening 29 and out through the fluid discharge opening 30(not shown). At least one strain sensor 17 is affixed to the transducer surface 41. The strain sensor 17 produces at least one signal upon said transducer surface 41 assuming the first position and at least one signal upon the transducer surface 41 assuming the second position to function as a integrated pressure transducer. The method further comprising the step of taking readings of the strain sensor 17 as an indication of pressure in said chamber.